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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/342,350	06/29/1999	AJAY CHANDRA GUMMALLA	CISCP089/960	6425

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EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2664	9

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/342,350	Applicant(s) GUMMALLA ET AL.	
	Examiner Raj Jain	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4/15/03* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-96* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *32-40 and 94-96* is/are allowed.

6)☒ Claim(s) *1-31 and 41-93* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 April 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claim(s) 1-6, 15-22, 25-31, 41, 46-50, 53-65, 73-80, and 85-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leano et al (US Pat. 6,453,472) in view of Chapman (US Pat. 6,438,123).

Regarding claims 1, 18, 27, 29, 41, 55, 61, 75, 87, 90 and 92, Leano discloses a method and apparatus for providing service over a computer network, the network including a Head End and a plurality of nodes, the network further including at least one shared access channel utilized by at least a portion of said plurality of nodes to communicate with said Head End, said network further including at least one downstream channel utilized by said Head End to communicate with said portion of nodes, the Head End in communication with an Access Control System (ACS) for coordinating node access to said Head End, **(see Figs 1 & 2 and col 2 L31-col 5 L2)**.

Leano fails to disclose the use of constant bit rate (CBR) service within the subject invention,

Chapman discloses constant bit rate (CBR) service within a CMTS network **(see abstract)**;

-receiving a CBR service request from a node on a particular shared access channel, said CBR service request comprising a request to periodically transmit to said Head End a packet of p bytes every t milliseconds **(see col 2 L39-46)**;

-evaluating whether said CBR service request can be admitted (**see Figs 10-12 and col 9 L24-36**); and in response to a determination that said CBR service request can be admitted, allocating a plurality of unsolicited grants for said node at predetermined, constant, periodic intervals, to thereby provide CBR service to said node (**see col 8 L19-33**).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Chapman within Leano so as to increase call density and bandwidth conservation via use of voice compression through header suppression reducing the packet size.

Regarding Claim(s) 2-4, 19, 29, 42, 48-50, 57, 58, 62-63, 72, 76-80, 88, 89, 91, and 93 Chapman discloses;

-a predetermined number of minislots on said shared access channel for each unsolicited grant allocated for said node (**see col 8 L15-25**).

-grant allocation MAP providing information to nodes on said channel relating to ownership and types of minislots on said shared access channel which are to be used by said nodes to communicate with the ACS (**see col 8 L33-59, Fig 8B**).

-each MAP message corresponding to a first predetermined number N of minislot allocations reserved primarily for CBR purposes, and a second predetermined number M of minislot allocations reserved for other purposes including maintenance, contention, and data grant purposes (**col 7 L59-67 and col8 L19-24**).

Regarding Claim(s) 5, 20, 28, 50, 56, and 64 Chapman discloses grant allocation for messages with varying timing (milliseconds) intervals (**see Figs 8a-8c and col 8 L7-col 9 L5**).

Regarding Claim(s) 6, 22, 46, 47, and 65 Chapman discloses the use of SIDs (**see abstract and col 1 L41 and specs in general and Fig 8A**).

Regarding Claim(s) 15 and 72 Chapman discloses evaluating grant time intervals (**see Figs 10-12 and col 9 L24-36**).

Regarding Claim(s) 16, 17, 25, 26, 30, 31, 53, 54, 59, 60, 73, 74, 85 and 86 Leano discloses wireless network and CMTS (**see Fig 1**).

Claims 7-14, 21, 23, 24, 29, 51, 52, 43-45, 66-71, 81-84 are rejected under 35 U.S.C. 103(a) as being unpatentable Leano et al (US Pat. 6,453,472) in view of Chapman (US Pat. 6,438,123) further in view of Dail et al. Leano discloses a method and apparatus for providing service over a computer network, the network including a Head End and a plurality of nodes, the network further including at least one shared access channel utilized by at least a portion of said plurality of nodes to communicate with said Head End, said network further including at least one downstream channel utilized by said Head End to communicate with said portion of nodes, the Head End in communication with an Access Control System (ACS) for coordinating node access to said Head End, (**see Figs 1 & 2 and col 2 L31-col 5 L2**).

Chapman discloses constant bit rate (CBR) service within a CMTS network (see abstract);

Leano and Chapman fail to disclose the allocation of time slots with minislot status state including a reserved state and a vacant state.

Dail teaches using mini-slots as a function of communication traffic to efficiently allocate bandwidth between various traffic profiles, (**see abstract, Figs 1 & 3 and col 6 L45 - col 7**

L59). The minislots are used for transmission requests with additional overhead; however, it still affords efficiency within traffic profiles, (**see col 10-12**). Dail further discloses the reservation and contention of timeslots with an acknowledgement message appended as part of the MAP message (**see Fig 3 & 8**). Dail further discloses the bit representation to indicate bandwidth requirements (**see col 7 L60 – col 8 L 17 and Fig 4**).

The division of a single timeslot into number of minislots provides a more efficient bandwidth usage amongst various traffic profiles (voice, video, data, or control), Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the minislot scheme of Dail within Leano improving the bandwidth usage of different call types using different call intervals for transmission.

Allowable Subject Matter

Claims 32 and 94 are allowed. Claims dependent from one of these independent claims are also allowed.

Response to Arguments

Applicant's arguments with respect to claims 1-96 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 703-305-5652. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

RJ
November 12, 2003

WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER
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